HARD X-RAY AND GAMMA-RAY OBSERVATIONS OF SN1987A DURING THE PERIOD 1987-1989

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Abstract

The Caltech Gamma-Ray Imaging Payload (GRIP) has observed SN1987A on four balloon flights from Alice Springs, Australia, in May and Nov. 1987, April 1988, and April 1989 (days: 85, 269, 414, and 771 respectively). The instrument is a coded-aperture telescope, sensitive to radiation in the energy range 30 keV to 10 MeV (Althouse *et al.* 1985). Both gamma-ray continuum and line emission were detected from the supernova, in qualitative agreement with existing models. In addition, we have obtained the first images of the SN1987A region at gamma-ray energies, confirming that the bulk of the gamma-ray emission comes from the supernova, and not from LMC X-1 (Cook *et al.* 1988). We review the results of these observations, including flux levels and upper limits for both line emission and Compton scattered continuum for each of the four flights.

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References

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